



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,429	01/28/2004	Johannes K. Notthoff	000406-804/TRWP123US	3599
23623	7590	09/08/2005		
AMIN & TUROCY, LLP			EXAMINER	
1900 EAST 9TH STREET, NATIONAL CITY CENTER			LAM, DAVID	
24TH FLOOR,				
CLEVELAND, OH 44114			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/766,429	NOTTHOFF, JOHANNES K.
	<b>Examiner</b>	<b>Art Unit</b>
	David Lam	2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 24-27,32 and 33 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,8-13,18-21,23,28-31,34 is/are rejected.
- 7) Claim(s) 3-7,14-17 and 22 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/12/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of claims 1-23, 28-31, 34 in the reply filed on 6/27/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 24-27, 32-33 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claims, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/27/05.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because of the following informalities: On page 11, line 8, "current source 234" should be change to -- current source 230 --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan (6,833,734).

Regarding to claims 1-2, 8-11 Chan discloses a switching system that employs inductive current steering comprising: at least two elements (350, 352) that provide respective inductive currents; a steering component (318) that directs the inductive current to a switching component (313, 314); a differential component (320, 322, 324, 326)) that employs the inductive currents to generate a differential output (327); the at least two elements are transformers; and the differential component comprises at least one differential transistor pair comprises at least two of an Field Effect Transistor (FET), the switching system employed a memory module (110) and the differential output is employed to drive a logic gate. *See Figs. 3-6; cols. 4-8.*

5. Claims 12-13, 18-19, 20-21, 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Nuechterlein (5,663,672).

Regarding to claims 12-13, Nuechterlein discloses a switching system comprising: a current steering component (27, 30) that generates activating and deactivating signals (261a-d) and a switching component (264) that receives the activating signal and deactivating signals and generates a differential output based on the activating and deactivating signals, wherein the

current steering component comprise a transformer; wherein the switching component comprises a differential transistor pair (Q1-Q4) and is employed in one or more latch (280, 281). *See Figs. 1-11; Cols. 5-13.*

As of claims 20-21, Nuechterlein discloses a data track and hold system that employs inductive current switching comprising: at least two data latches (280, 281); a transformer (27, 30) based clock bus that controls the at least two data latches via inductive current; respective data latches comprise a track differential transistor pair and a hold differential transistor pair (Q1-Q4). *See Figs 1-11; Cols. 5-13.*

As of claim 34 Nuechterlein discloses a system that provides inductive current to a differential transistor pair, comprising: means for receiving a clock signal (243); means for generating an inductive current based on the clock signal (27, 30); and means for steering the inductive current through the differential transistor pair in order to effectuate the output state of the differential transistor pair (Q1-Q4). *See Figs 1-11; Cols. 5-13.*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Nuechterlein (5,663,672) in view of Attwood et al. (4,992,751).

As per above discussion, Nuechterlein discloses the claimed invention as noted above but lack an inclusion of wherein the system employed as D-flip-flop. However, Attwood et al. disclose a switching system employed as D-flip-flop. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Nuechterlein's system by utilizing Attwod et al.'s teach to employed the switching system employed as D-flip-flop to provide an efficiency and reliable switching system.

With regard to claims 28-31, they encompass the same scope of invention as to that of claims 20-21, 34 except they draft in method format instead of apparatus format. The claims are therefore rejected for the same reason as set forth above.

*Allowable Subject Matter*

7. Claims 3-7, 14-17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach the above noted switching system and wherein respective secondary winding of the at least two elements generate the inductive current in connection with applying a different signal across the at least two elements.

*Conclusion*

Art Unit: 2827

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Green (6,909,309) discloses a current controlled CMOS circuits with inductive broadbanding.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lam whose telephone number is 571-272-1782. The examiner can normally be reached on 6:00 – 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID LAM  
PRIMARY EXAMINER

D. Lam

September 6, 2005